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DIVISION OF CONSUMER ADVOCACY
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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Application of)
PUBLIC UTILITIES COMMISSION)) DOCKET NO. 2008-0274
Instituting a Proceeding to Investigate Implementing a Decoupling Mechanism for))
Hawaiian Electric Company, Inc., Hawaii)
Electric Light Company, Inc., and Maui)
Electric Company, Limited.	

DIVISION OF CONSUMER ADVOCACY'S RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S POST-HEARING INFORMATION REQUEST

Pursuant to Public Utilities Commission's ("Commission") letter, dated July 15, 2009, the Division of Consumer Advocacy ("Consumer Advocate") submits its RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S POST-HEARING INFORMATION REQUESTS in the above docketed matter. Please note that while the requests were originally numbered 1 through 14, the Consumer Advocate has renumbered the questions in order to avoid having multiple responses information questions with the same number. Thus, while the Commission requested that parties,

The Commission originally requested that the parties respond to questions 7 through 14 within 28 days of the Commission's letter. However, by letter dated August 7, 2009, the Commission allowed a request for additional time, which resulted in the extension of the due date for responses until August 24, 2009 for PUC-IR-7 through PUC-IR-14, now renumbered as PUC-IR-56 through PUC-IR-63.

including the Consumer Advocate, were to respond to information requests originally numbered 7 through 14, the Consumer Advocate is submitting responses to the renumbered information requests PUC-IR-56 through PUC-IR-63.

DATED: Honolulu, Hawaii, August 24, 2009.

Respectfully submitted,

CATHERINE P. AWAKUNI

Executive Director

DIVISION OF CONSUMER ADVOCACY

DOCKET NO. 2008-0274

PUBLIC UTILITIES COMMISSION

DIVISION OF CONSUMER ADVOCACY'S RESPONSES TO PUBLIC UTILITIES COMMISSION'S POST-HEARING INFORMATION REQUESTS

PUC-IR-56

Please discuss the success and failures of decoupling in other

jurisdictions (e.g., Maine).

CA Response:

The Consumer Advocate has not independently prepared any

surveys of the "success and failures of decoupling in other jurisdictions". While the

Consumer Advocate understands that the Commission is not restricted from looking at

other alternatives, the Consumer Advocate instead reviewed the electric decoupling

procedures employed by the California PUC in preparing its filings in this Docket

because the Consumer Advocate was a signatory to the HCEI Agreement, which was

predicated upon implementation of a decoupling and RAM approach similar to what is

employed in California. See page 33 of the HCEI Agreement, which states "[t]he utility

will use a revenue adjustment mechanism based on cost tracking indices such as those

used by the California regulators for their larger utilities or its equivalent and not based

on customer count." The California PUC continues to employ revenue balancing

accounts and rate adjustment mechanisms for the electric utilities within its jurisdiction,

presumably because this regulatory approach has been determined to be a "success" in

that State.

Beyond California, the Consumer Advocate notes that HECO provided, as Attachment 1

to its response to DOD-RIR-29 in this Docket, a copy of a Standard & Poors Research

Report titled, <u>Decoupling: The Vehicle for Energy Conservation?</u>. This copyrighted report discusses decoupling in Maine and other jurisdictions.

Additionally, certain public sources available on the internet purport to have summarized decoupling information, including the following:

http://www.edisonfoundation.net/iee/issueBriefs/LRAM_Decoupling_Map0 509.pdf

http://www.progressivestates.org/content/671/utility-decoupling-giving-utilities-incentives-to-promote-energy-efficiency

http://www.cpuc.ca.gov/cleanenergy/design/docs/Deccouplinglowres.pdf

http://www.mydd.com/story/2009/2/22/14821/4077

http://www.cga.ct.gov/2005/rpt/2005-R-0702.htm

http://www.stateinnovation.org/Research/Energy-and-Environment/Utility-Decoupling/MN-RAP_Decoupling_Rpt_6-2008-(2).aspx

http://www.stateinnovation.org/Publications/All-Publications/Utility-Rate.aspx

http://featured.matternetwork.com/2008/9/transforming-rate-structures-power-energy.cfm

http://www.sustainablebusiness.com/index.cfm/go/news.display/id/16419

http://www.clf.org/work/CECC/energyefficiency/utilityrates/index.html

http://www.eenews.net/public/eenewspm/2009/02/24/4

http://www.tennesseeanytime.org/energy/node/1108

www.puco.ohio.gov/.../DecouplingWorkshop2009/SedanoOhioDecoupling.ppt

www.nwcouncil.org/.../NEET%20Work%20Group6%20Dec%2010%20200 8.doc The Consumer Advocate has not independently verified any of the claims made by these sources or the linked sources cited therein.

Please discuss the pros and cons of implementing the revenue enhancements discussed at each 3a, b, c, and d of the Commission's post-hearing IRs.

CA Response: As a preliminary statement of clarification, HECO has developed a long term financial projection in its response to PUC IR-14 that has been revised or corrected on several occasions. The Consumer Advocate has not attempted to analyze the many assumptions or the calculation algorithms utilized by HECO in developing its response to PUC IR-14. Therefore, we offer no opinions regarding specific future financial outcomes that may result from any particular variant of decoupling or rate adjustment mechanism. Indeed, the exercise of predicting the distant future is highly speculative under the best of circumstances and nearly impossible under present conditions of economic recession and revolutionary change in the way energy is produced, delivered and consumed in Hawaii.

Instead of financial modeling and speculation, the Consumer Advocate focused its efforts in this proceeding upon the development of a decoupling and rate adjustment mechanism that would carefully balance the interests of HECO and its ratepayers, while recognizing the interests of the parties to the HCEI Agreement in securing the financial strength of the HECO Companies and limiting the frequency of formal rate cases required during the implementation phase of the Agreement.

To that end, the recommended RBA and RAM tariffs and the associated review procedures documented within the Joint Statement of Position of HECO and the Consumer Advocate are designed to simulate the effect of periodic formal rate cases without the expense and delay associated with such cases. Notably, the RBA and RAM

achieve a degree of flexibility in responding to impossible to predict future circumstances through the focus upon shorthand application of revenue requirement updating. The RBA and RAM include the following important characteristics that are, to varying degrees, missing from the alternative approaches discussed in 3a, b, c and d of the Commission's post hearing IR's. These RBA and RAM characteristics include:

- 1. Reliance upon recorded per book rate base input values as the starting point for Plant in Service, Accumulated Depreciation, CIAC and Accumulated Deferred Income Taxes within rate base. Use of such recorded values avoids complex and potentially controversial classification judgments for the hundreds of individual construction projects that would be needed if "system reliability" or "customer additions" filters are required to be applied to such recorded costs.
- 2. Inclusion of all four primary determinants of rate base, Plant in Service, Accumulated Depreciation, CIAC and Accumulated Deferred Income Taxes, using the aforementioned recorded values, plus conservatively estimated changes in such values during the RAM year. This captures the important interrelationships between changing gross investment in Plant in Service as well as the offsetting changes in Accumulated Depreciation, CIAC and Deferred Income Taxes.
- Quantification of Depreciation Expense for the RAM year using PUC-approved accrual rates applied to actual, prior year-end recorded Plant in Service Balances, which results in precise estimation of RAM year Depreciation and Amortization Expenses.

- 4. Use of Commission approved O&M expenses as a starting point, with application of only two inflation indices, a conservatively applied GDPPI factor for non-labor expenses and known and measurable union wage rate percentage changes, reduced for estimated productivity growth, for labor expenses. This facilitates a simplified calculation of RAM year O&M with minimal opportunity for controversy that might occur when the parties are determining what incremental costs beyond those already reflected in base rates are related to compliance with Act 155.
- 5. The RBA Provision will serve to track and neutralize all changes in base revenues from test year approved levels, effectively ensuring HECO will recover precisely the level of base revenue authorized in rate case orders and subsequent RAM calculations.
- 6. The combined effect of elements 1 through 5 is an accounting for estimated changes in <u>all</u> of the most important moving parts of the revenue requirement between test years, without the complexity, cost and delay of formal rate case proceedings. However, recognizing that the RAM inputs are generalized estimates that are not subjected to the rigors of formal rate case scrutiny, the RBA and RAM provisions are backstopped with an earnings sharing mechanism, excessive capital cost refund provisions, and with formal RBA/RAM review provisions within the planned HECO 2011 test year rate case.

With these characteristics of RBA/RAM in mind, the Consumer Advocate will respond separately to <u>each</u> of the posited alternative "revenue enhancement" approaches in the discussion that follows. In evaluating these alternatives, the overarching question

should be: "Will the alternative method of revenue enhancement be successful in replacing annual rate cases?" If the alternative fails to effectively replace rate cases, it will create the worst of all worlds by burdening ratepayers with complicated quarterly formulistic rate increases that are pancaked on top of general rate proceedings that are in turn made considerably more complex by multiple overlapping ratemaking structures and constantly changing consumer prices.

<u>Alternative Mechanism 3a:</u> Quarterly ROR/Depreciation on "System Reliability" net Plant in Service Additions.

This alternative would allow quarterly revenue adjustments for return and depreciation on "net additions to FERC accounts related to system reliability". This approach could not be expected to result in just and reasonable revenues and rates in place of formal rate case proceedings for many reasons, including the following:

- Accounting for only "net additions" to plant accounts would fail to provide any
 recognition for ongoing growth in Accumulated Depreciation and Accumulated
 Deferred Income Tax accounts that represent significant and generally growing
 reductions to rate base between test years.
- Restricting "net additions" to only the Plant in Service net additions that are "related to system reliability" would potentially eliminate any accounting for the significant ongoing plant additions that are made by HECO to comply with environmental regulations, provide for demand growth, respond to requests for relocations of facilities or to install new productivity-enhancing technologies.
 These omissions would ensure such narrowly prescribed revenue increases

would be inadequate to preserve HECO's financial stability in the absence of general rate cases.

- Changing revenues for depreciation expenses on a quarterly basis would not match the HECO accounting policy for depreciation accruals, which are based upon actual Plant in Service balances at the end of the preceding calendar year.
- This alternative 3a mechanism would omit any revenue enhancements for O&M expense changes. This would ensure that such restrictive revenue increases would be inadequate to preserve HECO's financial stability in the absence of general rate cases, because of known periodic increases in wage rates and reasonably anticipated inflationary impacts upon non-labor expenses.

The alternative would also be administratively unworkable. The allowance of return and depreciation for only "system reliability" new investments would be completely dependent upon the creation and application of definitions and cost classification criteria that do not presently exist in any accounting rules or procedures. This is almost certain to create intractable controversy because there is no agreed upon approach to isolate "system reliability" investments. HECO would be required to develop and apply judgmental criteria to isolate such investments in the absence of any existing accounting rules, with a strong financial incentive to utilize very inclusive definitions and criteria. The HECO Companies' response to this information request is illustrative of this problem where four pages of narrative were needed just to state assumptions, disclaimers and methods used (see HECO response to PUC-IR-52, pages 6 to 9) and another 128 pages of workpapers (see Attachment 2) were needed to provide an

estimated quantification of this approach. Such a complex and judgmental approach is extremely problematic for any revenue adjustment device that is intended to be applied frequently and quickly with minimal controversy.

Another challenge to administration of any quarterly approach would be the nearly constant iteration of filings that would need to be received and analyzed by the Commission, Consumer Advocate and all concerned intervenors. The burden of thoroughly reviewing such a regulatory process, particularly given the definitional challenges described above and the potential for separate quarterly filings for HECO, MECO and HELCO, would likely overwhelm the limited resources now available to the parties.

For the aforementioned reasons, the Consumer Advocate would not support Alternative 3a over the Rate Adjustment Provision, as set forth in the Joint Statement of Position in this Docket.

<u>Alternative Mechanism 3b:</u> Quarterly ROR/Depreciation on net Plant in Service Additions related to "customer additions."

This alternative would allow quarterly revenue adjustments for return and depreciation on "net additions to FERC accounts related to customer additions". This approach also could not be expected to result in just and reasonable revenues and rates in place of formal rate case proceedings for many reasons, including the following:

 Accounting for only "net additions" to plant accounts would fail to provide any recognition for ongoing growth in Accumulated Depreciation and Accumulated Deferred Income Tax accounts that represent significant and generally growing reductions to rate base between test years. In addition, Contributions in Aid of Construction ("CIAC") might also fail to be properly recognized, especially since the FERC and NARUC accounting procedures differ with respect to how CIAC is recognized. If CIAC is not properly recognized, this would also result in the upward adjustments in revenues likely being larger than they should be.

- Restricting "net additions" to only the Plant in Service net additions that are "related to customer additions" would potentially eliminate any accounting for the more significant ongoing plant additions that are made by HECO to replace obsolete or unreliable facilities, comply with environmental regulations, respond to requests for relocations of facilities or to install new productivity-enhancing technologies. These omissions would ensure such narrowly prescribed revenue increases would be inadequate to preserve HECO's financial stability in the absence of general rate cases.
- Changing revenues for depreciation expenses on a quarterly basis would not match the HECO accounting policy for depreciation accruals, which are based upon actual Plant in Service balances at the end of the preceding calendar year.
- This alternative 3b mechanism would omit any revenue enhancements for O&M expense changes. This would tend to ensure that such restrictive revenue increases would be inadequate to preserve HECO's financial stability in the absence of general rate cases, because of known periodic increases in wage rates and reasonably anticipated inflationary impacts upon non-labor expenses.

The 3b alternative would also be administratively unworkable. The allowance of return and depreciation for only "customer additions" related to new investments would be completely dependent upon the creation and application of definitions and cost classification criteria that do not presently exist in any accounting rules or procedures. This is almost certain to create intractable controversy because there is no agreed upon approach to isolate "customer additions" investments. Thus, HECO would be required to develop and apply judgmental criteria to isolate such investments in the absence of any existing accounting rules, with a strong financial incentive to utilize very inclusive definitions and criteria. The HECO Companies' response to this information request is illustrative of this problem where four pages of narrative were needed just to state assumptions, disclaimers and methods used (see HECO response to PUC-IR-52 part b, which refers back to the narrative at pages 6 to 9) as well as another 128 pages of workpapers (see Attachment 2) were needed to provide an estimated quantification of this approach. Such a complex and judgmental approach is extremely problematic for any revenue adjustment device that is intended to be applied frequently and quickly with minimal controversy.

Another challenge to administration of any quarterly approach would be the nearly constant iteration of filings that would need to be received and analyzed by the Commission, Consumer Advocate and all concerned intervenors. The burden of thoroughly reviewing such a regulatory process, particularly given the definitional challenges described above and the potential for separate quarterly filings for HECO, MECO and HELCO, would likely overwhelm the limited resources now available to the parties.

For the aforementioned reasons, the Consumer Advocate would not support Alternative 3b over the Rate Adjustment Provision, as set forth in the Joint Statement of Position in this Docket.

Alternative Mechanism 3c: Quarterly O&M expense differences caused by "complying with Act 155."

This alternative would allow quarterly revenue adjustments for changes in O&M expenses that are judged to be "associated with complying with Act 155". This approach could not be expected to result in just and reasonable revenues and rates in place of formal rate case proceedings for many reasons, including the following:

- With no accounting for changes in rate base, the 3c alternative cannot be expected to produce just and reasonable rates, because much of the historical and expected future driver of higher revenue requirement is growing rate base. The failure to provide any recognition for continuous changes in Plant in Service associated with the replacement and upgrading of existing facilities, offset by the ongoing growth in Accumulated Depreciation and Accumulated Deferred Income Tax, would ignore the anticipated substantial changes to rate base occurring between test years.
- Allowing revenue growth for only O&M expenses "associated with complying with Act 155" would tend to not provide for any expense changes driven by general inflation, such as employee wage rates, and would ignore cost changes associated with operating and maintaining all of HECO existing production and T&D facilities. Additionally, any expenditure for Act 155 compliance that required

investments in new units of property, such as modifications to generation resources, extension or reinforcement of T&D facilities or new interconnection facilities must be capitalized to Plant in Service, effectively guaranteeing underrecovery of such costs when the "O&M only" criteria is employed. These omissions would ensure such narrowly prescribed revenue increases would be inadequate to preserve HECO's financial stability in the absence of general rate cases.

 Omitting any revisions to revenue requirement for growth in depreciation expenses would further amplify the shortfall in required new revenues, in direct proportion to the amounts of new Plant in Service investment that is ignored under this approach as described above.

Alternative 3c would be a challenge to administer, although somewhat less complex than alternatives 3a and 3b because it ignores the complexities of any rate base analysis. Unfortunately, as was the case with the suggested plant investment classifications under the earlier approaches, there is no existing prescribed accounting procedure to isolate Act 155 compliance expenses. Again, HECO would be required to develop and apply judgmental criteria to isolate such expenses in the absence of any existing accounting rules, with a strong financial incentive to utilize very inclusive definitions and criteria. The HECO Companies' response to PUC IR-52c is illuminating on this point:

The Companies found subpart c to be extremely challenging in quantifying the incremental O&M expenses not in base rates associated with compliance with Act 155. Because historical O&M expenses are not identified as supporting renewable energy or DSM objectives specifically,

estimating prospective incremental costs was also difficult. Feedback from the operational departments / divisions indicated that it would take up to two months to compile historical and prospective data to respond to this IR. Given the time constraints, interpretation of what is Act 155 related and what assumptions should be used for future projects were made by individual managers at the Companies and may not be totally consistent with one another. However, if the Commission were to adopt this methodology as a basis for determining an O&M RAM, the HECO Companies would work with the Commission to ensure consistency and transparency of methodology.

Such a complex and judgmental approach is extremely problematic for any revenue adjustment device that is intended to be applied frequently and quickly with minimal controversy. While HECO Companies offered to "work with the Commission" to develop new accounting systems and methods to isolate such costs, the Consumer Advocate is not confident that the additional resources required to regulate this new creation would be available. It is also likely that HECO would argue that additional labor resources would be required to accommodate the new systems and methods and that additional costs would be incurred to accommodate this methodology.

Another challenge to administration of any quarterly approach would be the nearly constant iteration of filings that would need to be received and analyzed by the Commission, Consumer Advocate and all concerned intervenors. The burden of thoroughly reviewing such a regulatory process, particularly given the definitional challenges described above and the potential for separate quarterly filings for HECO, MECO and HELCO, would likely overwhelm the limited resources now available to the parties.

For the aforementioned reasons, the Consumer Advocate would not support Alternative 3c over the Rate Adjustment Mechanism set forth in the Joint Statement of Position in this Docket.

Should the RAM concepts described at 3a and b be based on gross

or net plant additions?

CA Response: The 3a and 3b alternatives to formulistic revenue enhancement

would apply an authorized return and depreciation to plant additions by application of

new classification criteria, using "system reliability" or "customer additions"

categorization that are consistent with any existing accounting rules or systems. Given

the considerable problems with such approaches, as outlined earlier in this response,

the question of whether and how to use "gross or net" plant additions values is

important.

One interpretation of this question is that "net" plant additions could include an

accounting for the existing plant that is retired in connection with new construction

projects includable within the "system reliability" or "customer additions" classifications

created under the 3a and 3b approaches. The response to this question is affirmative in

that such retirements should definitely be considered if they can be isolated as part of

the analysis and classification of all completed construction projects that is required to

support each quarterly filing under these approaches. Of course, this added step of

identifying and accounting for the matched retirement work orders for each construction

project, while necessary, would further complicate an already burdensome and highly

judgmental quarterly work order classification study.

A different and broader interpretation of this question would suggest a calculation of the

utilities' "net" change in overall plant investment arising from the continuing accruals and

recovery from ratepayers of depreciation expense on old plant that provides cash flow

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available to "fund" new gross plant investment falling into the "system reliability" or "customer additions" classifications. This broader question would recognize the larger picture with respect to changes in rate base, where continuing investment in new plant in service is offset by the continuing growth in the accumulated reserves, for depreciation and deferred income taxes. Notably, this broader view of changes in rate base is captured by the RAM provision included within the Joint Statement of Position.

Please propose allocation methods among customer classes for each 3a, b, c and d and explain the basis for the allocation.

CA Response: The revenue changes arising from any formulistic quarterly rate adjustment mechanism should employ cost allocations among customer classes from the most recent completed rate case, based upon the relative total revenue responsibility at proposed rates among classes. The Consumer Advocate believes that the considerable administrative challenges arising from any formulistic ratemaking structures, particularly those intended to be quickly implemented on a quarterly basis, should not be amplified by any attempt toward re-allocation of cost responsibilities among customer classes. Instead, formula rate changes should rely upon and preserve class cost responsibilities using methods and conclusions reached in the most recent rate case proceeding. Cost allocation issues are inherently complex and are best established in rate cases where the needed cost allocation studies can be performed and evaluated by the Commission, the Consumer Advocate and representatives of each class that chooses to intervene in rate cases.

What should the Commission consider in selecting an ROE to use in calculating revenue enhancements between rate cases associated with rate base changes. Why should the ROE used in calculating the inter-rate case revenue adjustments based on rate base changes be equal to the ROE authorized in the rate case (per the proposed RAM), as the inter-rate case ROE appears to be guaranteed and the rate case ROE is an opportunity to earn the authorized return? Please discuss and quantify.

CA Response: For any rate adjustments between formal rate cases, the Commission should consider and use the ROE it finds reasonable for the utility based upon the testimony presented and examined in the most recently completed base rate case for that utility. Where the utility is provided with enhanced opportunities to shift risks to ratepayers and/or adjust its rates for changing costs between test years, at the expense of ratepayers, this authorized ROE within the rate case should consider the value of these enhancements and the corresponding reduction in business risks faced by the utility.

When implementing formulistic rate adjustment mechanisms, it is not practical or desirable to require the submission and regulatory examination of updated cost of capital evidence because such proceedings are intended to be reviewed and approved on an expedited schedule. Further, the HECO/CA Joint Statement of Position includes staggered three-year rate case filing cycles for HECO, HELCO and MECO, which will allow for a regular periodic review of ROE in the context of a rate case.

The Consumer Advocate does not agree with the assumption that the "inter-rate case ROE" used for these purposes is "guaranteed". Because the formula specified to calculate rate adjustments between rate cases will not match actual cost changes except by happenstance, the utility's ability or failure to "beat" the formulistic cost

estimates will determine actual earnings and achieved ROE. Allowing a specified ROE/ROR percentage in the rate adjustment calculations does not constitute any guarantee of the earnings actually achieved by the utility.

In the case of the RAM Provision set forth in the HECO/CA Joint Statement of Position, the inclusion of conservatively specified inflation factors, a labor productivity offset, historically trended plant additions (without inflation factors) and limitations upon major project cost recovery all work to reduce the expected size of RAM revenue adjustments. The conservative design of the RAM Provision terms, when coupled with the earnings monitoring and sharing provisions that are not symmetrical, ensures that excessive earnings will not result from approval of the RBA and RAM Provisions.

Please discuss the pros and cons of the Commission approving a RAM that consists of 3a, b and c with and without an RPC compared to the RAM proposed by HECO.

compared to the name proposed by ricco.

CA Response: Please see the Consumer Advocate's response to PUC-IR-8, where the pros and cons of approaches 3a, 3b and 3c are compared to the recommended RAM Provision. With regard to "RPC", which is assumed to be a reference to the "Revenue Per Customer" approach advocated by Haiku Design & Analysis ("HDA") in the instant Docket, the Consumer Advocate states the following:

- The revenue per customer approach is based upon the unproven supposition that the utility's revenue requirement varies directly with the number of customers being served. The Final Statement of Position submitted by HDA in this Docket states at page 17 that, "The RPC index is designed to allow recovery of the test year fixed costs to grow in proportion with utility system growth using an index of the number of new customers as a proxy for utility system growth between rate cases." However, most utility fixed costs do not vary directly with customer counts.
- The cost of service evidence in all recent and pending HECO, HELCO and MECO rate cases does <u>not</u> support the underlying assumption that costs vary directly with the number of customers being served. Instead the cost of service evidence indicates that most of the utilities' costs to provide utility service are caused by either the volume of energy delivered or demand levels being served within each customer class.

Historically, there has been no meaningful correlation between utility expenses
and the number of customers being served. This is illustrated in HECO's
response to PUC-IR-46 in this Docket and the Attachment to IR-46.

Combining an RPC approach with any of the other approaches 3a, 3b or 3c will not correct for the absence of any logical cost basis for RPC, but will instead produce more generous and arbitrary, but still unsupportable, periodic revenue increases. Adding RPC to the revenue enhancements under approach 3a for "reliability" investments, but not O&M expense growth, would produce potentially large revenue changes that may overstate the expected overall revenue requirement because of the possibility of HECO adopting liberal definitions of "reliability," thus causing excessive ROR and depreciation awards for such new investments on top of customer growth revenue indexing. Similarly, with regard to approach 3b, there would be an apparent double counting when allowing RPC revenue increases on a per customer basis, while also permitting additional revenue increases for the "customer additions" plant investment added to serve new customers. Outcomes from combining RPC to approach 3c are equally arbitrary and problematic, where major elements of rate base change are not explicitly considered and O&M changes treated as caused by Act 155 compliance become additive to the RPC revenue changes.

Please discuss the pros and cons of an ECAC in which (a) the utility bears the risk for heat rate changes within a performance band (e.g., plus/minus 50 Btu from the target) while (b) all changes in costs associated with heat rate changes outside the performance band are passed through to customers.

CA Response: A "pro" for such an ECAC is the potential that if HECO were to perform better than the heat rate performance band, the benefits of doing so would be passed through to ratepayers. However, a possible "con" under such an ECAC, would possibly be the perception that HECO would not have an incentive to perform better than the heat rate band, particularly if HECO, in order to achieve the improved heat rate performance, would need to expend additional monies for operating expenses and/or capital expenditures, or other efforts. Under the ECAC described in this IR above, HECO would not be compensated for such additional costs and efforts needed in order for the improved heat rate performance to occur, yet the benefits for HECO doing so would not be available to offset such additional cost but would be passed through to customers. Conceivably, it could be argued that if HECO is authorized to pass through all changes in costs resulting from poor performance below the heat rate band to customers, it might be viewed as HECO having an incentive to reduce or avoid maintenance expenditures and practices for its generating units to be available when needed and to perform efficiently when called upon. The incentive is that as HECO imposes budget constraints on such necessary maintenance, its bottom line performance would improve, since expenses relative to revenues are decreasing. Subsequently, the above ECAC would allow HECO to shift the risk of poor performance from itself to ratepayers. If the Commission were to implement the above ECAC, or if the Commission were to modify the current ECAC to be a full pass through by eliminating the fixed heat rate, the Consumer Advocate suggests that the Commission 2008-0274

also implement a formal process for the periodic review, audit and verification of HECO's fuel cost changes passed through to ratepayers under such ECAC. Such a process is not needed under the current ECAC with a fixed heat rate that is established as part of the rate case. It should be noted, however, that this would increase the existing regulatory workload to some unquantified extent. To summarize the "cons", the above ECAC would not provide for a fair sharing of the risk of performance between HECO and ratepayers, would not provide a reasonable incentive for HECO to manage and operate its generating units efficiently, and would increase the burden and effort needed to audit and verify HECO's performance under the ECAC.

By way of background, the concept of the proposed heat rate band is to address the concerns raised to "decouple" HECO earnings and financial risks from resource commitment decisions and reduced sales levels that should be made to achieve policies of maximization of renewable energy and energy efficiency — but at the same time maintain ECAC incentives for HECO to minimize its fossil use by operating its units efficiently from a thermodynamic standpoint (i.e., minimize the heat rate for the fossil resources that will maximize integration of renewable resources and maintain reliable service). In light of such concerns, HECO and the Consumer Advocate jointly proposed the current ECAC be modified to provide for a pass through of changes in fuel cost within a heat rate deadband. The size of the deadband was set to reasonably accommodate heat rate changes resulting from changes in sales and renewable resource additions between decoupling rate case filings. HECO would be at risk for performance outside of the deadband, and would have an incentive to perform the necessary maintenance and operating practices and expenditures for the reliable and

efficient operation of its generating units. HECO and the Consumer Advocate developed the recommended "triggers" for redetermination of target heat rates between decoupling rate case filings when larger resources are added to the system. The ECAC jointly proposed by HECO and the Consumer Advocate also addresses the timing for HECO to seek changes in the heat rate target, the process for HECO to seek a change to the heat rate target outside of a rate case, the justification required of HECO to change a heat rate target, and the effective date for a change in the target heat rate. In contrast to the ECAC described in the above IR, the Consumer Advocate believes that the heat rate band and the target heat rates established under the jointly proposed ECAC will provide an appropriate sharing of risk between HECO and the ratepayers, provide an incentive for HECO to reasonably manage and operate its resources reliably and efficiently, and provide for the greater use of renewable energy and sales reductions due to energy efficiency programs while preserving HECO's financial integrity.

Please discuss the pros and cons of an ECAC that remained the same as the current ECAC but removed the Btus used for spinning reserve from the heat rate calculation.

CA Response: Generally, there is not any fuel use, or Btu use, associated with spinning reserves, because spinning reserves are commonly referred to as the unloaded portion of generation that is on-line and "spinning." While some mainland utilities have developed a quantification of spinning reserve fuel use to add to the cost of transmission ancillary services, the amount quantified has generally been negligible. Therefore, removing the Btus associated with the spinning reserves, if quantifiable for HECO, is not likely to have any significant impact and any comparison between keeping the ECAC the same and with the modification proposed in the question would likely yield negligible pros or cons when only considering the impact on the ECAC.

On the other hand, decisions regarding the level of spinning and regulating reserves to be carried by HECO have a significant impact on the heat rate. Assuming that existing reliability levels are to be maintained, the level of spinning and regulating reserves to be carried by each utility is expected to increase as intermittent renewables are added to HECO's systems. The cost of increasing spinning and operating reserves is raised in HDA's Opening Statement of Position, dated March 28, 2009 at pages 7 to 9 as a dis-incentive under the current ECAC for HECO to accommodate intermittent renewable generation. The underlying reason is that the current ECAC includes a fixed heat rate, but carrying higher amounts of spinning and operating reserves to accommodate intermittent renewables will cause the heat rate to increase because more, less efficient units will need to be on-line and operating to provide that increased level of spinning and operating reserves. In other words, unless the target heat rate

changes with the addition of renewables that cause an increase in spinning and regulating reserves, HECO would have a disincentive to accommodate increasing levels of renewable resources, or to operate without increasing its spinning and regulating reserves because the former might impact the financial stability of the utility and the latter would impact the reliability of the system. To address these concerns, HECO and the Consumer Advocate jointly propose that the addition of large intermittent renewable resources that trigger increases in spinning and regulating reserve requirements to accommodate incorporating the renewable resource should also trigger a process for the re-setting of the target heat rate. The process requires that certain analyses be performed, and the changes in target heat rates be determined by HECO for review by the Commission, the Consumer Advocate and other interested parties prior to implementation.

In addition, if the Consumer Advocate understands the question correctly, by removing the Btus associated with the spinning reserve, if quantified, might provide greater disincentive to the adoption of renewable resources. That is, even though assumed to be relatively negligible, removing the Btus associated with spinning reserve should, in theory, result in a lower heat rate, and if the ECAC remained the same, it would become more difficult for HECO to "beat" the heat rate if more intermittent renewable resources are utilized. The proposed alternative would, however, result in a lower heat rate, which would possibly provide greater incentives for HECO to operate as efficiently as possible.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing DIVISION OF CONSUMER ADVOCACY'S RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S POST-**HEARING INFORMATION REQUESTS** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

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